

PATENT
(5760-12200/VRTS-0375)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application No.: 10/616,437

Filed: July 9, 2003

Inventor(s):

Hans F. van Rietschote

Craig W. Hobbs

Mahesh P. Saptarshi

Title: Migrating Virtual Machines
among Computer Systems
to Balance Load Caused by
Virtual Machines

§ Examiner: Unknown
§ Group/Art Unit: Unknown
§ Atty. Dkt. No: 5760-12200
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I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on the date indicated below.

Lawrence J. Merkel

Name of Registered Representative

[Signature]
Signature

September 17, 2003

Date

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Applicant requests consideration of ☒ the references listed on the attached Form PTO-1449 and/or ☒ the additional information identified below in paragraph 3. A copy of each reference listed on the Form PTO-1449 is enclosed.

1. This Information Disclosure Statement is submitted:

- a. ☐ within 3 months of the filing date of a national application other than a continued prosecution application under § 1.53(d);
☐ within 3 months of the date of entry of the national stage as set forth in § 1.491 in an International application;
☒ before the mailing date of a first Office Action on the merits; or
☐ before the mailing of a first Office Action after the filing of a request for continued examination under § 1.114.
- b. ☐ after the events of above paragraph 1a and prior to the mailing date of a final Office Action or Notice of Allowance, and thus: ☐ the certification of paragraph 2 below is provided, or ☐ a fee of \$180.00 is enclosed.



- c. ☐ after the mailing date of a final Office Action or a Notice of Allowance and prior to payment of the issue fee, and thus: the certification of paragraph 2 below is provided and a fee of \$180.00 is enclosed.

2. It is hereby certified:

- ☐ that each item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the Statement, or
- ☐ that no item of information contained in the Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application or, to the knowledge of the person signing the certification after making reasonable inquiry, was known to any individual designated in § 1.56 (c) more than three months prior to the filing of the Statement.

3. ☒ Consideration of the following additional information (including any co-pending or abandoned U.S. applications, prior uses and/or sales, etc.) is requested:

U.S. Application Serial No. 10/108,882	(5760-00200)
U.S. Application Serial No. 10/109,406	(5760-00300)
U.S. Application Serial No. 10/109,186	(5760-00400)

4. For each non-English language reference listed on the attached Form PTO-1449:

- ☐ reference is made to an English language translation submitted herewith, and/or
- ☐ reference is made to a foreign patent office search report (in the English language) submitted herewith, and/or
- ☐ reference is made to an English language translation of a foreign patent office search report submitted herewith, and/or
- ☐ reference is made to the concise explanation contained in the specification of the present application at page(s) _____, and/or
- ☐ reference is made to the concise explanation set forth below:

5. ☐ Applicant also offers the following comments for the Examiner's consideration:

6. ☐ Also enclosed is a copy of a foreign search report citing these references.


7. ☐ The listed documents were brought to the attention of the Applicant(s) after payment of the issue fee in the captioned case. The documents were cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Information Disclosure Statement. Applicant(s) request this Information Disclosure Statement and attached Form PTO-1449 be placed in the file of the captioned application.



☐ Applicant(s) requests that the Information Disclosure Statement and attached Form PTO-1449 and references, which are being filed before the grant of the patent and pursuant to 37 C.F.R. § 1.97(i), be placed in the file of the captioned application.

If any required fees are missing, the Commissioner is authorized to charge said fees to Meyertons, Hood, Kivlin, Kowert & Goetzel, P.C. Deposit Account No. 50-1505/5760-12200/LJM.

Respectfully submitted,


Lawrence J. Merkel
Reg. No. 41,191
Agent for Applicant(s)

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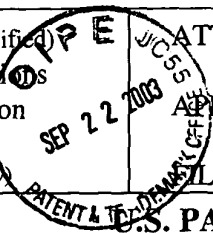
Date: September 17, 2003

Form PTO-1449 (modified)
List of Patents and Publications
For Applicant's Information
Disclosure Statement
(Use several sheets if necessary)

ATTY. DKT. NO. 5760-12200
APPLICANT: van Rietschote, et al.
FILING DATE: July 9, 2003

SERIAL NO. 10/616,437

GROUP: Unknown

**U.S. PATENT DOCUMENTS**

EXAM. INITIALS	REF. DES.	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE IF APPROPRIATE
	A1	5,944,782	8/31/99	Noble, et al.			
	A2	5,872,931	2/16/99	Chivaluri			
	A3	5,852,724	12/22/98	Glenn, II, et al.			
	A4	6,029,166	2/22/00	Mutalik, et al.			
	A5	6,363,462	3/26/02	Bergsten			
	A6	6,341,329	1/22/02	LeCrone, et al.			
	A7	6,324,627	11/27/01	Kricheff, et al.			
	A8	6,298,428	10/2/01	Munroe, et al.			
	A9	6,298,390	10/2/01	Matena, et al.			
	A10	6,075,938	6/13/00	Bugnion, et al.			
	A11	5,621,912	4/15/97	Borruso, et al.			
	A12	4,969,092	11/6/90	Shorter			
	A13	4,912,628	3/27/90	Briggs			

FOREIGN PATENT DOCUMENTS

EXAM. INITIALS	REF. DES.	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB CLASS	TRANSLATION YES/NO

OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

	A14	VMware, Inc., "VMware Control Center," 2003, 3 pages.
	A15	InfoWorld, Robert McMillan, "VMware Launches VMware Control Center," 2003, 2 pages.
	A16	VMware, Inc., "VMware Control Center: Enterprise-class Software to Manage and Control Your Virtual Machines," 2003, 2 pages.
	A17	John Abbott, Enterprise Software, "VMware Heads Toward Utility Computing With New Dynamic Management Tools," July 1, 2003, 4 pages.
	A18	Dejan S. Milogicic, et al., "Process Migration," August 10, 1999, 49 pages.
	A19	Xian-He Sun, et al., "A Coordinated Approach for Process Migration in Heterogeneous Environments," 1999, 12 pages.
	A20	Kasidit Chanchio, et al., "Data Collection and Restoration for Heterogeneous Process Migration," 1997, 6 pages.

EXAMINER:

DATE CONSIDERED:

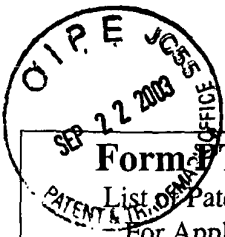
EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the patent owner.

Form PTO-1449 (modified) List of Patents and Publications For Applicant's Information Disclosure Statement (Use several sheets if necessary)		ATTY. DKT. NO. 5760-12200 APPLICANT: van Rietschote, et al. FILING DATE: July 9, 2003	SERIAL NO. 10/616,437 GROUP: Unknown
OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)			
A21	Kasidit Chanchio, et al., "A Protocol Design of Communication State Transfer for Distributed Computing," Publication date unknown, 4 pages.		
A22	SourceForge™, "Project: openMosix: Document Manager: Display Document," 14 pages.		
A23	OpenMosix, "The openMosix HOWTO: Live free() or die (), " May 7, 2003, 3 pages.		
A24	OpenMosix, "openMosix Documentation Wiki - don't," May 7, 2003, 2 pages.		
A25	Veritas, "Executive Overview," Technical Overview, pages 1-9.;		
A26	Kinshuk Govil, et al., "Cellular Disco: Resource Management Using Virtual Clusters on Shared-Memory Multiprocessors," 17 th ACM Symposium on Operating Systems Principles (SOSP'99), Published as Operating Systems Review 34(5):154-169, December 1999, pages 154-169.		
A27	Edouard Bugnion, et al., "Disco: Running Commodity Operating Systems on Scalable Multiprocessors," Computer Systems Laboratory, Stanford, CA, 33 pages.		
A28	"White Paper, GSX Server," VMware, Inc., December 2000, pages 1-9.		
A29	"Vmware GSX Serve, The Server Consolidation Solution," VMware, Inc., 2001, 2 pages.		
A30	"Manage Multiple Worlds., From Any Desktop," VMware, Inc., 2000, 2 pages.		
A31	"VMware ESX Server, The Server Consolidaton Solution for High-Performance Environments," VMware, Inc., 2001, 2 pages.		
A32	Melinda Varian, "VM and the VM Community: Past, Present, and Future," Operating Systems, Computing and Information Technology, Princeton Univ., August 1997, pp. 1-67.		
A33	VERITAS, "Comparison: Microsoft Logical Disk Manager and VERITAS Volume Manager for Windows," May 2001, 4 pages.		
A34	VERITAS, "How VERITAS Volume Manager Complements Hardware RAID in Microsoft Server Environments," May 2001, pp. 1-7.		
A35	VERITAS, "VERITAS Volume Manager for Windows, Best Practices," May 2001, pp. 1-7.		
A36	Barrie Sosinky, Ph.D., "The Business Value of Virtual Volume Management, In Microsoft Window NT and Windows 2000 Netowrks," VERITAS, A white paper for administrators and planners, October 2001, pp.1-12.		
A37	VERITAS, "VERITAS Volume Manager for Windows NT," Version 27, 2001, 4 pages.		
A38	"BladeFram™ System Overview," Egenera, Inc., 2001 2 pages.		
A39	White Paper, "The Egenera™ Processing Area Network (PAN) Architecture," Egenera, Inc., 2002, 20 pages.		
A40	White Paper, "Emerging Server Architectures," Egenera, Inc., 2001, 12 pages.		
A41	White Paper, "Improving Data Center Performance," Egenera, Inc., 2001, 19 pages.		
A42	White Paper, "Guidelines for Effective E-Business Infrastructure Management," Egenera, Inc., 2001, 11 pages.		

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DATE CONSIDERED:

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Form PTO-1449 (modified) List of Patents and Publications For Applicant's Information Disclosure Statement (Use several sheets if necessary)	ATTY. DKT. NO. 5760-12200 APPLICANT: van Rietschote, et al. FILING DATE: July 9, 2003	SERIAL NO. 10/616,437 GROUP: Unknown
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OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

A43	White Paper, "The Pros and Cons of Server Clustering in the ASP Environment," Egenera, Inc., 2001, 10 pages.
A44	Position Paper, "Taking Control of The Data Center," Egenera, Inc., 2001, 4 pages.
A45	Position Paper, "The Linux Operating System: How Open Source Software Makes Better Hardware," Egenera, Inc., 2001, 2 pages.
A46	"Solution Overview," TrueSAN Networks, Inc., 2002, 7 pages.
A47	"Simics: A Full System Simulation Platform," Reprinted with permission from Computer, February 2002, © The Institute of Electrical and Electronics Engineering, Inc., pp. 50-58.
A48	"Introduction to Simics Full-System Simulator without Equal," Virtutech, July 8, 2002, 29 pages.
A49	"The Technology of Virtual Machines," A Connectix White Paper, Connectix Corp., 2001, 13 pages.
A50	"The Technology of Virtual PC," A Connectix White Paper, Connectix Corp., 2000, 12 pages.
A51	"About LindowsOS," Lindows.com, http://www.lindows.com/lindows_products_lindowsos.php , 2002, 2 pages.
A52	"Savannah: This is a Savannah Admin Documentation," Savannah, Free Software Foundation, Inc. © 2000-2002, 31 pages.
A53	"Virtuozzo Basics," Virtuozzo, http://www.sw-soft.com/en/products/virtuozzo/basics/ , © 1994-2002 SWsoft, printed from web on 12/13/2002, 2 pages.
A54	"What is Virtual Environmnet(VE)?," SWsoft, http://www.sw-soft/en/products/virtuozzo/we/ , © 1994-2002 SWsoft, printed from web on 12/13/2002, 2 pages.
A55	"Products," Netraverse, Inc, 2002, http://www.netraverse.com/products/index.php , printed from web on 12/13/2002, 1 page.
A56	"NeTraverse Win4Lin 4.0 - Workstation Edition," Netraverse, Inc, 2002, http://www.netraverse.com/products/win4lin40/ , printed from web on 12/13/2002, 1 page.
A57	"Win4Lin Desktop 4.0," Netraverse, Inc, 2002, http://www.netraverse.com/products/win4lin40/benefits.php , printed from web on 12/13/2002, 1 page.
A58	"Win4Lin Desktop 4.0," Netraverse, Inc, 2002, http://www.netraverse.com/products/win4lin40/features.php , printed from web on 12/13/2002, 2 page.
A59	"Win4Lin Desktop 4.0," Netraverse, Inc, 2002, http://www.netraverse.com/products/win4lin40/requirements.php , printed from web on 12/13/2002, 2 page.
A60	"Win4Lin Terminal Server 2.0," Netraverse, Inc, 2002, http://www.netraverse.com/products/wts , printed from web on 12/13/2002, 1 page.
A61	"Win4Lin Terminal Server 2.0," Netraverse, Inc, 2002, http://www.netraverse.com/products/wts/benefits.php , printed from web on 12/13/2002, 1 page.

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Information Disclosure Statement--PTO 1449 (modified)

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